Notification of inactivation for new design. 2 September 91

INCH-POUND

MIL-S-19500/372A(ER)
AMENDMENT 6
2 September 1991
SUPERSEDING
AMENDMENT 5
22 June 1977

MILITARY SPECIFICATION

SEMICONDUCTOR DEVICE, THYRISTOR (CONTROLLED RECTIFIER), SILICON
TYPES 2N4199 THROUGH 2N4206

This amendment forms a part of MIL-S-19500/372A(ER), dated 5 February 1968, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.3, table, items V_{GKM} 2/ and V_{KGM} 2/: Delete "6" and "6".

1.4, table, item I_{HOO}: Add "50 mA dc 2/".

PAGE 4

* 4.2, delete and substitute the following:

"4.2 Qualification and lot acceptance inspection. Qualification inspection is not required for this specification. Screening and quality conformance inspections shall be in accordance with MIL-S-19500, Quality Assurance Provisions, and as otherwise specified herein. Groups A, B, and C inspection shall consist of the examinations and test specified in tables I, II, and III respectively, herein. Acceptance inspection shall include inspection of preparation for delivery (see 5.1 herein)."

PAGE 5

* 4.2.1: Delete in its entirety.

PAGE 6

4.2.2d, second sentence, delete and substitute:

"Hereto, the manufacturer may exercise an option to subject a sample of ten each units for each sublot through all group A tests and through all group C tests (when group C tests are incumbent to be performed) except that, for the group C life tests, only five each of the selected test sample units need be subjected to each life test; and pertinent to these sampling options, the following evaluation criteria shall apply:"

PAGE 9

Table I, Subgroup 2, Holding current test, Max limit: Add "50 mA dc".

PAGE 17

Table II, Examination or test: Delete "Subgroup 5" and substitute "Subgroup 6". Also, End-point tests: Delete "Subgroup 4" and substitute "Subgroup 5".

PAGE 19

Table III, Subgroup 3, Peak forward gate voltage test, delete all applicable data and substitute the following:

"---	Forward gate surge test (repetitive)	Test circuit and test conditions (procedure per figure 7 herein. P_{GM} = 20 watts"	---	---	---	---

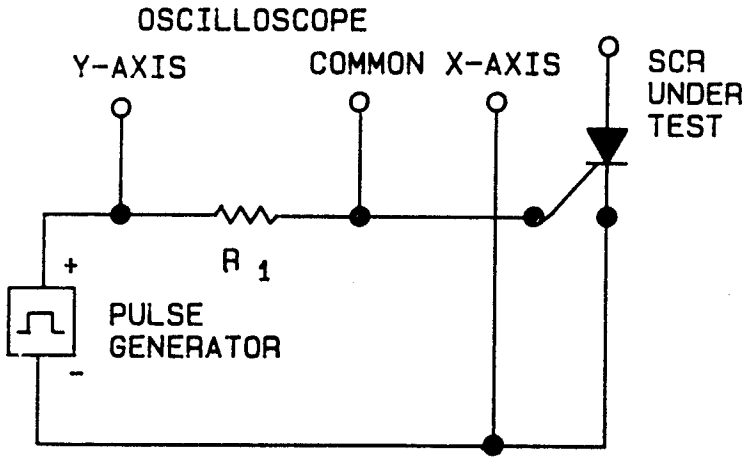
Table III, Subgroup 3, Repetitive peak forward current test, conditions column, after V_{FBO} = 300 V, min, applied, add: "i_{FM}(rep) = 100 A". Also, delete "i_{FM}(REP) 100 --- A" and substitute "--- --- --- ---", respectively.

Table III, Subgroup 3, Burn-out by pulsing (non-repetitive) test: Delete in its entirety.

PAGE 28

Figure 7, delete and substitute the following:

"



CIRCUIT ELEMENTS AND CONDITIONS:
R_1 = 2 ohms, 50 W, ±1%
t_p = 10 µs; prr = 100 pps
t^p = 1 s, minimum

PROCEDURE

(1) Apply sufficient generator signal such that 10 volts is applied between gate to cathode (v_{GK}). (Gate current (i_G) shall be a minimum value of 2 amperes during this time.)
(2) Following step (1), apply sufficient generator voltage such that 5 amperes of gate current (i_G) flows. (Gate to cathode voltage (v_{GK}) developed during this interval shall be 4 volts minimum.)

Note: If, during the test, either of the minimum test conditions of a. 2 amperes as in (1), or b. 4 volts as in (2), cannot be obtained during the test as specified, increase the generator voltage until the minimum condition above is met.

FIGURE 7. Peak forward gate voltage, v_{GK}, test circuit."

FIGURE 8: Delete in its entirety.

The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

CONCLUDING MATERIAL

Preparing activity:
Army - ER

Agent:
DLA - ES

(Project 5961-A042)